

ABSTRACT

The method enables the series production of light structural components out of long-fiber thermoplastic material (LFT) with integrated continuous fiber (CF) – reinforcements in a single stage LFT – pressing step. In this, CF – tapes (5) are melted open and transferred into a profile tool (21) of a CF – profile forming station (20), there are pressed for a short time period and shaped into the required CF – profile (10). In doing so, by means of contact with the thermally conditioned profile tool (21) on the profile surface (11) a shock-cooled, dimensionally stable, thin casing layer (12) is formed and the inside of the CF – profile remains melted. Following a defined short shock-cooling period (t_s), the CF – profile (10) is transferred into an LFT – tool (31) and pressed together with an introduced molten LFT – mass (6). In doing so, the casing layer (12) is melted open again on the surface (11) and is thermoplastically bonded together with the surrounding LFT – mass.